

Candidate for Executive Committee

R. Iris Bahar
Brown University, Providence, RI USA

BIOGRAPHY

Academic Background:

Ph.D., University of Colorado-Boulder, 1995, Electrical and Computer Engineering.

Professional Experience:

Associate Professor of Engineering, Brown University, Providence, RI, 2003 – 2009;
Assistant Professor of Engineering, Brown University, Providence, RI, 1996 – 2003;
Research Assistant, University of Colorado, Boulder, CO, 1992 – 1995.

Professional Interest:

CAD for synthesis, verification, and low-power design of integra; Design, test, and reliability issues for nanoscale systems; Hardware/Software design of multi-processor systems.

ACM Activities:

Associate Editor, ACM Journal of Emerging Technologies in Computing, 2006 – 2009;
Emerging Technologies co-chair, SIGDA Technical Committee, 2006 – 2009;
Member, SIGMICRO, 1997 – 2009.

Membership and Offices in Related Organizations:

Member, IEEE Computer Society, 1994 – 2009.

Awards Received:

ACM: Recognition of Service Award, Program Chair IWLS, 2005; Technical Leadership Award, SIGDA E-Newsletter, 2005.

Other: Tau Beta Pi, the engineering honor society, 1984, Eta Kappa Nu, the electrical engineering honor society, 1984; Sigma Xi, the scientific research society, 1998.

STATEMENT

I have been an active participant in ACM/SIGDA activities for many years. As Educational Activities Chair, I believe I can continue to make valuable contributions. In particular, I have the following goals and interests in mind if elected to serve as chair:

- 1) Heighten the awareness of the role of EDA within the computing community at large
- 2) Outreach to undergraduate students who may be interested in EDA as a career focus
- 3) Promote education-oriented workshops at EDA conferences
- 4) Continue to support efforts such as CADathlon, summer schools, Ph.D. forums

- 5) Developing joint educational activities among SIGs with overlapping interests (e.g., SIGMICRO, SIGBED, SIGARCH)

Candidate for Executive Committee

Vikas Chandra
ARM, Sunnyvale, CA USA

BIOGRAPHY

Academic Background:

Ph.D., Carnegie Mellon University, 2004, Electrical and Computer Engineering.

Professional Experience:

Staff R&D Engineer, ARM, Sunnyvale, CA, 2007 – Present;
Member of Technical Staff, Tabula Inc., Santa Clara, CA, 2004 – 2006;
Research Assistant, CMU, Pittsburgh, PA, 2000 – 2004.

Professional Interest:

High performance and low power design; Low voltage design techniques; SRAM circuits and architectures; Design for manufacturability; Reliability aware design.

ACM Activities:

Co-chair, Technical Committee on FPGA and Configurable Computing, SIGDA, 2006 – Present;
Co-organizer, 2009 Design Automation Summer School (DASS), SIGDA, 2009;
Co-organizer, 2007 Design Automation Summer School (DASS), SIGDA, 2007.

Membership and Offices in Related Organizations:

Finance chair, SELSE 2009, IEEE, 2008 – 2009;
TPC Member for various conferences - CICC, ICCD, VLSI etc., IEEE, 2005 – Present.

STATEMENT

I have been an active member of the SIGDA community since 2006. I truly believe that SIGDA initiatives are very beneficial to the VLSI Design Automation Community. My vision of SIGDA is to help educate world class researchers and to help current researchers solve problems in the domain which will be very critical in coming years. To this end, I have been involved with a couple of SIGDA initiatives. I have had the opportunity to co-organize the SIGDA Design Automation Summer School. I learnt a great deal about how to use SIGDA as a platform to educate the next generation of engineers and researchers. I am also the co-chair for SIGDA Technical Committee and we focus on creating research awareness in the domain of FPGA and Configurable Computing.

As a member of the Executive Committee, I would make sure that the vision of SIGDA gets further strengthened. Further, I would like SIGDA to play a role in bridging the gap between academia and industry so that exploratory research can be transferred to commercial products. I am very honored to be nominated for the post of SIGDA Executive Committee member and if elected, I would do my best to serve SIGDA.

Candidate for Executive Committee

Naehyuck Chang
Seoul National University, Seoul, Korea

BIOGRAPHY

Academic Background:

Ph.D., Seoul National University, 1996, Control and Instrumentation Engineering.

Professional Experience:

Assistant/Associate Professor, Seoul National University, Seoul, Korea, 1997 – 2009;
Visiting Associate Professor, Arizona State University, Tempe, AZ, 2005;
Technical Advisor, Sindoricoh Co., Ltd., Seoul, Korea, 2001 – 2009.

Professional Interest:

Low-power systems design; Embedded systems design and implementation; Fuel-cell and battery hybrid systems for portable electronics; Automotive electronics.

ACM Activities:

Technical Program Co-Chair, International Symposium on Low-Power Electronics and Design, 2009 – Present;
Chair, ACM SIGDA Low-Power Technical Committee, 2008 – 2009;
Local Arrangement and Registration Chair, International Conference on Hardware-Software Codesign and System, 2006;
Technical Program Committee, Design Automation Conference, 2004 – 2006.

Membership and Offices in Related Organizations:

Senior Member, IEEE, 2005 – 2009; Senior Member, ACM, 2007 – 2009.

Awards Received:

ACM: Low-Power Design Contest Award, ISLPED, 2007; Low-Power Design Contest Award, ISLPED, 2004; Low-Power Design Contest Award, ISLPED, 2003; Low-Power Design Contest Award, ISLPED, 2002.
Other: Korea Research Foundation Grant Research Professor, 2009; Best Lecture Award, College of Engineering, Seoul National University, 2007; LG Yonam Foundation Research Professor, 2005; Best Lecture Award, College of Engineering, Seoul National University, 2000.

STATEMENT

I have been participating in the major ACM SIGDA sponsored conferences and events such as DAC, ICCAD, ISLPED, CODES+ISSS, ASP-DAC, SIGDA PhD Forum, SIGDA University Booth and so forth, as a Technical Program Committee member, an Organizing

Committee member and/or an active participant over a decade. I also have contributed to those events presenting many innovative low-power system design research papers and demonstrations. I'm currently the ACM SIGDA Low-Power Technical Committee Chair, and also serve as a Committee member of ACM SIGDA PhD Forum and Graduate Scholarship. I have created a new website for the Low-Power Technical Committee and now share the resource with other Technical Committees. Through such activities, I am familiar with the dynamics of the ACM SIGDA activities.

As a SIGDA Executive Committee member, I would like to participate to the ACM SIGDA activities and events with deeper involvement. Dedicating my expertise of low-power design, I will actively contribute to the research and educational activities in ACM SIGDA. Through this election, I would like to have an opportunity to make my efforts toward a big success of ACM SIGDA.

Candidate for Executive Committee

Farzan Fallah
Envis Corporation, Santa Clara, CA USA

BIOGRAPHY

Academic Background:

Ph.D., MIT, 1999, Electrical Engineering and Computer Science.

Professional Experience:

Engineering Director, Envis Corporation, Santa Clara, CA, 2008 – Present;
Member of Research Staff, Fujitsu Labs. of America, Sunnyvale, CA, 1999 – 2008;
Consulting Professor, USC, Los Angeles, CA, 2005.

Professional Interest:

Low Power Design; Verification and Validation of HW/SW; Compiler Design; Computer Architecture; VLSI Design.

ACM Activities:

Vice Chair, Low Power Technical Committee of SIGDA, 2008 – Present;
Associate Editor, ACM Transactions on Design Automation of Electronic Systems, 2008 – Present;
Sub-committee Co-Chair, International Symposium on Low Power Electronics and Design, 2008;
Organizing Committee Member, International Symposium on Low Power Electronics and Design, 2006 – 2009.

Membership and Offices in Related Organizations:

Track Co-Chair, International Conference on Computer Design, 2008;
Technical Program Committee Member, Design Automation and Test in Europe, 2005 – 2009.

Awards Received:

ACM: Best Paper Award, Design Automation Conference, 1998.
Other: Best Paper Award, International Conference on VLSI Design, 2005;
17 Intellectual Property Awards, Fujitsu Labs of America, 1999 – 2009.

STATEMENT

SIGDA has recently established Technical Committees to better serve specific areas of EDA. As the vice chair of the Low Power Technical Committee, I wrote the first draft of the bylaws which is currently used by the LPTC and other technical committees.

I have also initiated a project to use data mining techniques to classify scientific papers. Upon completion, the system will automatically classify low power papers based on their topics. This would enable researchers to see the trend of research done on different topics over the years which will help them to better choose their research topics. Furthermore, it will make it easy to find all papers published on a particular topic.

If elected,

1. I will continue working on the paper classification project and will try to make it part of the ACM digital library so all ACM members will benefit from it.
2. With the help of other members of the scientific community, I will come up with a set of guidelines for the paper review and selection process in conferences and journals to make the process more efficient.

Candidate for Executive Committee

Tony Givargis
University of California, Irvine, CA USA

BIOGRAPHY

Academic Background:

Ph.D., University of Ca., Riverside, 2001, Computer Science.

Professional Experience:

Associate Professor, University of California, Irvine, CA, 2006 – 2009;

Assistant Professor, University of California, Irvine, CA, 2001 – 2006.

Professional Interest:

Embedded Systems; Embedded Software; Processor Architecture; Computer Aided Design; Low Power Systems.

ACM Activities:

Chair of SIGDA Ph.D. Forum at DAC, SIGDA, 2007;

Co-Chair of SIGDA Technical Committee on System Design, SIGDA, 2006;

Co-Chair of SIGDA Ph.D. Forum at DAC, SIGDA, 2006;

Associate Editor of ACM Transactions on Embedded Computing Systems, 2008 – 2009.

Awards Received:

ACM: SIGDA Technical Leadership Award, 2007; Best Paper, ACM TODAES, 2006.

Other: Best Paper, American Control Conference (ACC), 2006; Best Paper, CASES, 2008.

STATEMENT

I'm looking forward to contributing to the mission of ACM SIGDA in any capacity.

Candidate for Executive Committee

Alex K. Jones
University of Pittsburgh, Pittsburgh, PA, USA

BIOGRAPHY

Academic Background:

Doctor of Philosophy, Northwestern University, 2002, Electrical and Computer Engineering.

Professional Experience:

Assistant Professor of Electrical and Computer Engineering, Computer Science, University of Pittsburgh, Pittsburgh, PA, 2003 – 2009;

Instructor and Research Associate, Northwestern University, Evanston, IL, 2002 – 2003;
Walter P. Murphy Fellow and Research Assistant, Northwestern University, Evanston, IL, 1998 – 2002.

Professional Interest:

System level design; Compilation and emulation for many-core parallel systems; Low-power and low energy computing and synthesis; Reconfigurable computing architectures and tools; Wireless sensor networks and radio frequency identification.

ACM Activities:

Executive Committee - Treasurer, UBooth, SIGDA, 2008 – 2009;
Advisory Board - University Booth, SIGDA, 2007 – 2008;
Coordinator and Program Director, University Booth, SIGDA, 2005 – 2009;
Organizing Committee, Ph.D. Forum, SIGDA, 2007 – 2009.

Membership and Offices in Related Organizations:

Steering Committee, Workshop on Large Scale Parallel Processing, IEEE, 2005 – 2009;
Program Committee/Chair, Microelectronic Systems Education Conf., IEEE, 2005 – 2009;
Program Committee, Reconfigurable Architecture Workshop, IEEE, 2008 – 2009.

Awards Received:

Senior Membership IEEE, 2008; University of Pittsburgh Innovator Award, 2007; Walter P. Murphy Fellowship, Northwestern University, 2000; Walter P. Murphy Fellowship, Northwestern University, 1998.

STATEMENT

Based on my experience serving on the advisory board and executive committee of SIGDA and organizing sponsored activities such as the DAC University Booth and Ph.D. Forum, I hope to serve and provide leadership for SIGDA and the EDA community. For example, I

turned a \$15k budget cut for the UBooth program into a positive by arranging a facelift and increased visibility for the program's 20th year through additional industry and volunteer support. Similarly, I will lead efforts to:

- Increase the influence of SIGDA with DAC, our flagship conference, by developing innovative and collaborative solutions to serious challenges such as reduced attendance and economic contraction, while providing new forums for emerging technologies and providing direction for important new markets for SIGDA and DAC.
- Improve visibility and impact of SIGDA by creating new programs encouraging development of emerging technologies in CAD, increased SIGDA presence in "Communications," recognition through proactive nomination of ACM fellows and new SIGDA awards of distinguished leaders in EDA, and serving the community by disseminating their materials and talks developed for SIGDA events.

Finally, I look forward to working with our leadership and membership to improve the overall number, diversity, and activity of the membership in SIGDA.

Candidate for Executive Committee

Patrick H. Madden
Binghamton University, Binghamton, NY USA

BIOGRAPHY

Academic Background:

Ph.D., UCLA, 1998, Computer Science.

Professional Experience:

Associate Professor, Binghamton University Computer Science Dept., Binghamton, NY, 2004 – 2009;

Assistant Professor, Binghamton University Computer Science Dept., Binghamton, NY, 1998 – 2004.

Professional Interest:

Physical Design; Combinatorial Optimization; Computational Biology.

ACM Activities:

Vice-Chair, SIGDA, 2006 – 2009;

Executive Committee, SIGDA, 2002 – 2006;

Advisory Board, SIGDA, 1998 – 2002.

STATEMENT

I have been honored to serve the design automation community through SIGDA for the past ten years, and have been an active member of ACM for more than twenty years. During this time, SIGDA has pushed hard to make conferences and journals easily available, new workshops and symposia have been started, and there has been a focus on preparing new researchers to enter the field. While this has been rewarding, there is more to be done.

The challenges now faced are unprecedented; power limitations have fundamentally altered what can be implemented efficiently. Both software and hardware design must change, and SIGDA must change too. My belief is that there are both pitfalls and opportunities ahead. Through innovation, determination, and careful consideration of the past, we can continue bringing about technological advances while expanding the design automation field.

Candidate for Executive Committee

Igor Markov
University of Michigan, Ann Arbor, MI, USA

BIOGRAPHY

Academic Background:

Ph.D., UCLA, 2001, Computer Science.

Professional Experience:

Associate Professor, Assistant Professor, University of Michigan, Ann Arbor, MI, 2000 – 2008;

Visiting Professor, National Taiwan University, Taipei, Taiwan, 2007;

Principal Engineer, Synplicity and Synopsys, Sunnyvale, CA, 2007.

Professional Interest:

Physical Design of Integrated Circuits; Logic and High-level Synthesis of Integrated Circuits; Algorithms for Verification; Emerging Technologies for Computing and Communication.

ACM Activities:

Member of Advisory and Executive Boards, SIGDA, 2006 – 2008;

Member of Editorial Board of ACM TODAES, SIGDA, 2007 – 2008;

Editor of ACM SIGDA newsletter, SIGDA, 2005 – 2007;

Member of Editorial Board of Communications of ACM, ACM, 2008 – 2008.

Membership and Offices in Related Organizations:

Senior Member, ACM, 2007 – 2008; Senior Member, IEEE, 2006 – 2008.

Awards Received:

ACM: ACM SIGDA Outstanding New Faculty Award, 2004; ACM Recognition of Service Award, 2005; Best paper award at ACM/IEEE Design Automation and Test in Europe Conference, 2005; ACM SIGDA Technical Leadership Award, 2006.

Other: IEEE CaS Donald O. Pederson Award for best paper in Trans. on CA, 2003; Univ. of Michigan, EECS Dept. Outstanding Achievement, 2008; Microsoft A. Richard Newton Breakthrough Research Award, 2008; Best paper award at ACM Int'l Symposium on Physical Design, 2008.

STATEMENT

Design Automation, as a field of knowledge, research, and industrial practice, includes a number of important disciplines, some nascent and some more established. While diverse, the DA community relies on professional meetings to keep its members up-to-date on technological progress and new initiatives. Most of these meetings, including the Design Automation Conference and a number of specialized venues, benefited from the organizational help offered by SIGDA and its members. SIGDA is also responsible for several publications (newsletter, TODAES) and pioneered a number of educational activities, including the Design Automation Summer School, the University Booth and Ph.D. Forum at DAC, as well as CADathlon at ICCAD. Several important awards are administered by SIGDA. New initiatives, such as Technical Committees, promise to organize and nourish research and professional activities in specific areas.

Through my service on the Advisory and Executive Boards, I have been involved with many of SIGDA activities and helped initiate some of them. I am also one of two SIGDA representatives at the Editorial Board of Communications of the ACM. If elected, I will continue contributing my time and energy to SIGDA, and ensure continuity at this difficult time of shrinking budgets and industry involvement.

Candidate for Executive Committee

Marcus Riedel
University of Minnesota, Minneapolis, MN USA

BIOGRAPHY

Academic Background:

Ph.D., Caltech, 2004, Electrical Engineering.

Professional Experience:

Assistant Professor, University of Minnesota, Minneapolis, MN, 2006 – 2009;
Postdoctoral Fellow, Caltech, Pasadena, CA, 2005;
Research Assistant, Caltech, Pasadena, CA, 2003 – 2004.

Professional Interest:

Bio-Design Automation; Synthetic Biology; Logic Synthesis; Verification; Emerging Technologies.

ACM Activities:

Technical Program Committee Chair of IWLS 2009, SIGDA, 2009;
General Chair of IWLS 2008, SIGDA, 2008;
Co-Chair, SIGDA Technical Committee on RTL and Logic Synthesis, SIGDA, 2006 – 2009;
Associate Editor, SIGDA Newsletter, SIGDA, 2006 – 2009.

Awards Received:

Charles Wilts Award for Best EE Doctoral Dissertation at Caltech, 2004; Best Paper Award, Design Automation Conference, 2003.

STATEMENT

As a member of the SIGDA Executive Committee, I will strive to invigorate research in fields such as logic synthesis, optimization and verification, and to promote new directions for these fields. I am particularly interested in the application of expertise from logic synthesis to emerging areas such as nanotechnology and synthetic biology. I will lobby for increased funding, visibility and coverage of papers related to logic synthesis in major CAD conferences, and provide a link between SIGDA, academia and industry.

Candidate for Executive Committee

Lin Yuan
Synopsys, Inc., Mountain View, CA USA

BIOGRAPHY

Academic Background:

Ph.D., University of Maryland, College Park, 2006, Computer Engineering.

Professional Experience:

Senior R&D Engineer, Synopsys, Inc., Mountain View, CA, 2006 – Present.

Professional Interest:

Power network analysis and synthesis; Gate-level power optimization; Thermal aware design and optimization; Power optimization in wireless sensor network; VLSI intellectual property protection.

ACM Activities:

Associate Editor for SIGDA E-Newsletter, SIGDA, 2007 – Present;
SIGDA Website Administrator, SIGDA, 2006 – Present.

Membership and Offices in Related Organizations:

Member, IEEE Computer Society, 2004 – Present;
Member, ACM, 2004 – Present.

Awards Received:

National Collegiate Inventors and Innovators Alliance Award, 2006; University of Maryland Jacob K. Goldhaber Grant, 2004; University of Maryland Distinguished Teaching Assistant, 2004.

STATEMENT

SIGDA is an important community for professionals and students in the EDA field. The improvement of SIGDA will benefit not only this interest group itself but also the EDA field as a whole. As there is a close tie between academia and industry in the EDA field, with my industry and academia background, I will do my best to attract more attention from EDA industry and academia to this group.

My previous services at SIGDA as Web administrator for the SIGDA website and associate editor for SIGDA E-Newsletter have given me valuable experience. Working with excellent colleagues at SIGDA has helped me to understand the structure and procedures inside ACM.

At this time, I am very honored to be nominated for a SIGDA office. Motivated and passionate, I will contribute my ideas and efforts to improve the effectiveness of SIGDA and help it to grow in the next term.